CLAIMS

1. A method of classifying Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus in a packet switch network, said method comprising:

receiving said data at a first node; and

classifying said data at said first node based on source routing information of said data.

2. The method of claim 1, wherein said source routing information is provided within a routing header of said data for IPv6.

3. The method of claim 2, wherein said classifying is based on a destination address provided within said routing header.

4. The method of claim 2, wherein said routing header comprises a segments left field, a first destination address field and a last destination address field, and said classifying is based on information within said last destination address field of said routing header.

5. The method of claim 1, wherein said source routing information is provided within one of LSRR and SSRR of said data for IPv4.

6. The method of claim 5, wherein said classifying is based on a destination address provided within said one of LSRR and SSRR of said data for IPv4.

7. The method of claim 5, wherein said one of LSRR and SSRR of said data for Ipv4 comprises a first destination address field and a last destination address field, and said classifying is based on information within said last destination address field of said one of LSRR and SSRR of said data for Ipv4.

8. The method of claim 1, wherein said data is received at said first node from said source apparatus.

9. The method of claim 1, further comprising reserving resources of nodes from said source apparatus to said destination apparatus.

10. The method of claim 9, wherein reserving said resources comprising forwarding a request from said source apparatus to said first node.

11. The method of claim 1, further comprising storing said source routing information at said first node.

12. The method of claim 1, further comprising:

forwarding said data from said first node to a second node;

and

classifying said data at said second node based on source routing information of said data.

13. A router for use in a packet switched network for transmission of Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus, said router comprising:

means for receiving said IP data at a first node; and

means for classifying said IP data at said first node based on source routing information of said data.

14. The router of claim 13, wherein said source routing information is provided within a routing header of said data for IPv6.

15. The router of claim 14, wherein said classifying is based on a destination address provided within said routing header.

16. The router of claim 14, wherein said routing header comprises a segments left field, a first destination address field and a last destination address field, and said means for classifying classifies said IP data based on information of said last destination address field of said routing header.

17. The router of claim 13, wherein said source routing information is provided within one of LSRR and SSRR of said data for IPv4.

18. The router of claim 17, wherein said classifying is based on a destination address provided within said one of LSRR and SSRR of said data for IPv4.

19. The router of claim 17, wherein said one of LSRR and SSRR of said data for IPv4 comprises a first destination address field and a last destination address field, and said classifying is based on information within said last destination address field of said one of LSRR and SSRR of said data for IPv4.

20. The router of claim 13, wherein said IP data is received at said means for receiving from said source apparatus.

21. The router of claim 13, wherein said means for classifying reserves resources of nodes from said source apparatus to said destination apparatus.

22. The router of claim 21, wherein reserving said resources comprising forwarding a request from said source apparatus to said first node.

23. The router of claim 13, further comprising means for storing

said source routing information in memory.

24. The router of claim 13, further comprising:

means for forwarding said data from said first node to a second node.

25. A router for use in a packet switched network for transmission of Internet Protocol (IP) data to be sent from a source apparatus to a destination apparatus, said router comprising:

a receiving device to receive said IP data at a first node; and

a processor device coupled to said receiving device to receive said IP data and to classify said data at said first node based on a source routing information of said data.

26. The router of claim 25, wherein said source routing information is provided within a routing header of said data for IPv6.

27. The router of claim 26, wherein said classifying is based on a destination address provided within said routing header.

28. The router of claim 26, wherein said routing header comprises a segments left field, a first destination address field and a last destination address field, and said processor

device classifies said IP data based on information in said last destination address field of said routing header.

29. The router of claim 28, wherein said processor device classifies said IP data based on information in said last destination address field of said routing header.

30. The router of claim 25, wherein said source routing information is provided within one of LSRR and SSRR of said data for IPv4.

31. The router of claim 30, wherein said classifying is based on a destination address provided within said one of LSRR and SSRR of said data for IPv4.

32. The router of claim 30, wherein said one of LSRR and SSRR of said data for IPv4 comprises a first destination address field and a last destination address field, and said classifying is based on information within said last destination address field of said one of LSRR and SSRR of said data for IPv4.

33. The router of claim 25, wherein said data including said routing header is received at said first node from said source apparatus.

34. The router of claim 25, wherein said processor device reserves resources of nodes from said source apparatus to said

destination apparatus.

35. The router of claim 34, wherein reserving said resources comprising forwarding a request from said source apparatus to said first node.

36. The router of claim 25, further comprising a memory device to store said source routing information.

37. The router of claim 25, further comprising:

a forwarding device coupled to said processor device to forward said data from said first node to a second node.